

**PATTERN DETECT AND
BYTE ALIGN CIRCUIT USING CAM**

ABSTRACT OF THE DISCLOSURE

5 A method detects a programmable pattern (*e.g.*, Ethernet comma or SONET
A1A2 frame) and simultaneously byte aligns to that pattern. The technique uses a content
addressable memory (CAM) programmed (*e.g.*, selected by the user) with a particular pattern to
enable detecting of a symbol or symbols, or pattern, of bits in an incoming serial stream. The
circuitry deserializes the serial stream and byte aligns parallel data based on output from the
10 CAM and a state machine.